

Claims

1. An apparatus (1) for processing sheet material, such as bank notes (BN), having a transport device (5, 7, 8, 14) for transporting single sheets of the sheet material, the transport device having a diverting device (8) for diverting the transport direction of the single sheets, and the diverting device having one or more opposite first and second diverting elements (25, 26, 27, 28, 30, 37, 47) between which the sheets are transported through for diversion,
characterized in that
the diverting device has means (26, 27, 37, 47) for transporting even poor-quality sheets through between the diverting elements without jamming.
2. The apparatus according to claim 1, characterized in that the diverting device (8) is a separate component of the apparatus (1).
3. The apparatus according to claim 1 or 2, characterized in that at least some of the first and/or second diverting elements are diverting rollers (25, 26, 27, 28, 30, 37, 47) which are each mounted rotatably around an axle (25a, 26a, 27a, 28a, 30a, 37a, 47a).
4. The apparatus according to at least one of the previous claims, characterized in that at least one of the diverting elements (30) has a roughened surface (30O) with depressions (30T) of at least 1 mm, preferably at least 2 mm.
5. The apparatus according to at least one of the previous claims, characterized in that the first diverting element (37) rotates for diverting the sheet material (BN), and the first diverting element (37) has an elastic surface (37O) which, upon rotation, is deformed complementarily to the form of the second diverting element (28, 30).
6. The apparatus according to at least one of the previous claims, characterized in that the first and/or second diverting element has a paddle wheel (47) with outwardly protruding paddles (48) for pulling along the sheet material (BN), by rota-

tion of the paddle wheel (47), toward a point (13) in the transport path of the diverting device (8) where the sheet material (BN) is diverted.

7. The apparatus according to at least one of the previous claims, characterized in that the diverting device (8) is a transport gate (8), whereby mechanical displacement of a gate element (10, 16) permits the sheets to be diverted alternatively into different transport paths (9, 11, 12, 17, 18, 19).
8. The apparatus according to claim 7, characterized in that the gate element (10, 16) and the other diverting elements (25, 26, 27, 28, 30, 37, 47) are disposed in different planes.
9. The apparatus according to at least one of the previous claims, characterized by a smoothing device (26), in particular having conically formed pressure rollers (26) with an elastic surface, which pulls apart the sheet material in a direction (K) perpendicular to the transport direction immediately before diversion (13) in the diverting device (8).
10. The apparatus according to claim 9, characterized in that the smoothing device (26) is part of the diverting device (8).
11. An apparatus (1) for processing sheet material, such as bank notes (BN), having an input device (3) for inputting sheet material, a transport device (5, 7, 8, 14) for transporting singled sheets of the sheet material along a transport path (S_1, S_2, S_3, S_4), the transport device having an alignment unit (5) for aligning the input sheets against a stop extending in the transport direction, and a transport unit (7) downstream of the alignment unit (5) for transporting the aligned sheets further, and having a monitoring device (20) for monitoring the position of the sheets in the transport path,
characterized in that
the monitoring device (20) effects the monitoring of the position of the sheets in the transport path only after traversal of the alignment unit (5).

12. The apparatus according to claim [*sic*], characterized by at least one light barrier (20) in the transport path downstream of the alignment unit (5).